1	2
Jammu and Kashmir	0
Karnataka	433
Kerala	253
Madhya Pradesh and Chhattisgarh	602
Maharashtra and Goa	1948
Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Tripura	30
Orissa	168
Punjab	519
Rajasthan	358
Tamil Nadu	713
Uttar Pradesh and Uttarakhand	858
West Bengal, Sikkim and Andaman and Nicobar	690

Technological upgradations for BSNL

2471. MS. PRAMILA BOHIDAR:
SHRI B.J. PANDA:

Will the Minister of COMMUNICATIONS AND INFORMATION TECHNOLOGY be pleased to state:

(a) whether BSNL proposes to invest Rs. 60,000 crores over the next three years, with the objective of achieving more than double turnover;

(b) if so, the details thereof; and

(c) the details of technological upgradations that are proposed to be taken up to achieve the objective, *inter-alia* indicating those that would be taken up in the State of Orissa?

THE MINISTER OF STATE IN THE MINISTRY OF COMMUNICATIONS AND INFORMATION TECHOLOGY (DR. SHAKEEL AHMAD): (a) Yes, Sir. BSNL has planned to invest over Rs.60,000 crores during next three years, with the objective of doubling its turnover.

(b) BSNL has drawn following plan to achieve these targets:

(i) Providing 3 million telephone connections per month from January, 2008.

(ii) Providing 5 lakh broadband connections per month *w.e.f.* from January 2008.

(c) Details of technological upgadation and network upgradation planned to be taken by BSNL are given in Statement-I and 11 respectively (*See* below).

Expansion plan for Orissa Circle for current year 2007-2008 and next three years is given in Statement-III.

Statement-I

The details of technological upgradations proposed to be taken by BSNL

(a) Mobile:

BSNL has planned for the introduction of 3G services using WCDMA technology in the cellular mobile network. 3G would consist of high speed data services with the down load speed available from 2 Mbps to 14 .4 Mbps. It would thus enable mobile subscribers to access triple play services *i.e.* voice, video and data services.

(b) Broadband:

1. For proliferating broadband service in Taluka/village, BSNL is executing a pilot project of Wi-Max which is initially planned at 10 places. This covers four rural places in Haryana *viz.* Pinjaur, Rohtak, Panipat and Hissar. Other six places are Ahemdabad, Kolkatta, Hyderabad, Pune, Bangalore and Chennai where Wi-Max will be catering to both urban and rural customers. Thereafter, the project will be executed throughout the country including Orissa.

2. Wi-Fi access in major public utility places like Airport, Malls, hotels etc is being implemented in a progressive manner. A total of 300 hotspots is being planned to be opened spanning 20 cities.

3. BSNL is also considering roll out of broadband service in Taluka/village through CorDECT. The same is planned to be initially rolled out in three circles (Haryana, Karnataka and Tamil Nadu) covering entire taluka and depending upon the feasibility and economic viability, the same will then be extended to all.

4. With induction of new technologies following services are planned to be offered:

(i) High Speed Internet Access with wide range of plans for both home and business customers

(ii) Games on Demand

(iii) IPTV

(iv) Audio/Video Conferencing

(v) VPN access on DSL

(vi) Broadband will be the backbone for the various e-governance projects.

(c) Switching:

The basic switching network of BSNL comprises of state-of-the-art digital electronic exchanges and MSCs (for WLL). However, there is a plan to induct the packet switching in place of TDM in BSNL network in a progressive manner.

(d) Transmission:

There are plans to induct the following new technologies/ cable in external plant in the networks:

(i) IP — based New Generation Network (NGN)

(ii) 400 Gbps DWDM systems

(iii) Fibre to the Home (FTTH)

(iv) Submarine Cable

(v) 652.d Type OF Cable

BSNL has plans for deployment of NGN Architecture in a phased manner over next 5 years. As a first step in this direction IP is being introduced in transit network through IP TAX project.

Statement-II

Details of plans for the network upgradation in next three years

(a) Broadband:

(i) Network upgradation through: IP-MPLS Core network is planned to be extended to district and taluka levels.

1. The MPLS Physical POPs are presently at 100 locations spread across the country through which MPLS VPN service is offered across the length and breadth of country.

2. The existing broadband access network is used for providing MPLS VPN access on DSL. The same is available in around 810 cities.

3. With the deployment of broadband multiplay, MPLS VPN on DSL will be available in all district and taluka levels.

Additional physical MPLS POPs (from the existing 100 locations) are planned under NGN

(ii) Setting up of Soft Switch inftastructure to leverage on VoiP traffic (for broadband customers):

The same is planned to be done under revenue sharing arrangement, BSNL is in the process of inviting an EOI for the same.

Server Hosting:

Agreement has been signed with three franchisees, *viz.*, M/s Divinet (Pune) M/s IOL (Bangalore) and M/s Goldstone (Hyderabad). Agreement is in process with two more franchisees M/s Assh and M/s Times Broadband for NCR.

(b) Switching:

Upgradation of network is a continuous process in BSNL. In order to provide the State of the art facilities to its customers, the following steps are planned for upgradation of its basic service network.

(i) To replace all the old and life expired exchanges capacity by New Technology Exchanges.

(ii) To replace the Paper Core Cable by PIJF Cable.

(iii) To provide CLIP phones in place of ordinary telephone sets.

(iv) To provide broadband capabilities in its WLL network.

(c) **Transmission:**

Plan for IP based NGN:

(i) IP routers in 21 cities and PE routers in 106 cities.

(ii) Installation over in 100 cities.

(iii) PE routers in 216 cities to be introduced with 6476 KC IP TAX projects.

(iv) Routers in remaining 280 districts to be provided along with roll out of class 5 NGN network.

Plan for setting up of Soft switch infrastructure:

1. Two Soft Switches at Chennai and New Delhi and Trunk Media Gateways at 21 cities already planned in 200 KC IP TAX project.
2. All 322 LDCAs to be covered with Soft Switch architecture in 6476 KC IP TAX project.

Plan for DWDM and Satellite Links:

1. Induction of DWDM up to Districts Head Quarters.
2. Replacement of MCPC type Satellite Links by IDR Systems

Statement-II

Details of planning for expansion during the current financial year (2007-08) and next three years of Orissa telecom circle

Sl. No.	Items	Unit of Measurement	Expansion Plan during 2007-08	Expansion plan during next three years (*i.e.* 2007-10)
1	2	3	4	5
1 (i)	Net addition in BTS of Mobile	Nos.	346	707
(ii)	Net addition in equipped Capacity of Mobile	Lines	3,00,000	6,37,500
2 (i)	Net addition in BTS of WLL	Nos.	74	90

1	2	3	4	5
(ii)	Net addition of equipped Capacity of WLL	Lines	42,250	94,500
3	Net addition in Broadband Capacity	Ports	23,400	70,200
4	Provision of VPT on Satellite Media (DSPT)	Nos.	3,350	–
5	Replacement of VPT on MARR	Nos.	577	–
6	Net addition in equipped capacity of New Technology Switching equipment	Lines	17,500	66,000
7	Net addition in TAX capacity	Kilo CCts	10	50
8	Net addition in OF Cable	RKMs	700	10,000
9	Net addition in Fibre to Home (FTIH)	RKMs	–	200

List Of Abbreviation Used In RS USQ 2471 For 6/9/2007

BTS	–	Basic Transceiver Station
LDCA	–	Long Distance Charging Area
NGN	–	New Generation Network
MSC	–	Mobile Switching Centre
TDM	–	Time Division Multiple
Mbps	–	Mega bytes per second
Gbps	–	Giga bytes per second
DWDM	–	Dense Wavelength Division multiple access
OF	–	Optical Fibre
IPTV	–	Internet Protocol T.V.
IP TAX	–	Internet Protocol Trunk Automatic Exchange
IDR	–	Intermediate Data Rate
WCDMA	–	W Code Division Multiple Access
VPN	–	Virtual Private Network
PIJF	–	Polly Insulated Jelly Filled
TAX	–	Trunk Automatic Exchange
MPLS	–	Multi Protocol Lable Switching
POP	–	Point of Presence
MCPC	–	Multi Channel Per Carrier
RKMS	–	R. Kilometers
IP	–	Internet Protocol